

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method that exposes a second object by transferring a pattern of a first object with an exposure beam, in which a plurality of divided regions having different target exposure levels defined on said second object are successively exposed by emitting pulses of the exposure beam from a pulsed energy source and moving said first object and said second object synchronously with respect to the exposure beam, the method comprising:

setting a transmittance of a light reducing member disposed in an optical path of the exposure beam based on at least one target exposure level,

wherein the transmittance is determined so as to satisfy a predetermined condition when exposing a divided region having a minimum target exposure level;

adjusting a parameter when exposing the divided regions having different target exposure levels without changing the determined transmittance of the light reducing member.

2. (Previously Presented) A method according to claim 1, wherein said parameter includes at least one of a width of the exposure beam on the second object in the moving direction of the second object, a moving speed of the second object during the synchronous movement, an oscillation frequency of the exposure beam by the pulsed energy source, and an energy of the exposure beam emitted from the pulsed energy source.

3. (Previously Presented) A method according to claim 1, wherein said transmittance of the light reducing member is determined according to the minimum target exposure level in the plurality of exposure levels.

4. (Previously Presented) A method according to claim 1, wherein said target exposure levels are determined for the plurality of divided regions respectively, according to distances from a center of the second object.

5. (Canceled)

6. (Previously Presented) A method according to claim 1, wherein said target exposure levels for the plurality of divided regions are predetermined by performing a test exposure.

7. (Canceled)

8. (Previously Presented) A method according to claim 1, wherein the exposure conditions is related to the number of pulses of the exposure beam directed to the second object.

9. (Previously Presented) A method according to claim 1, wherein the second object is a wafer.

10. (Previously Presented) An apparatus that illuminates a first object with an exposure beam and that successively exposes a plurality of divided regions defined on a second object with said exposure beam, comprising:

an illumination system having a pulsed light source that generates pulses of an other exposure beam and a light attenuator disposed in a path of the exposure beam;

a stage system having a first stage and a second stage, the first stage and the second stage being moved synchronously, and the first object disposed on the first stage and the second object disposed on the second stage;

a memory that stores target exposure levels in a plurality of different levels for a plurality of divided regions defined on the second object wherein a transmittance of the light attenuator is determined so as to satisfy a predetermined condition when exposing a divided region having a minimum exposure target level;

a control system that changes an exposure parameter when successively exposing the plurality of divided regions defined on the second object based on the target exposure levels stored in the memory without changing the determined transmittance, wherein said parameter includes oscillation frequency of the pulsed light source, target energy of each of the pulses emitted from the pulsed light source, and speed of the second stage during the synchronous movement.

11. (Previously Presented) An apparatus according to claim 10, wherein said light attenuator has a light reducing member to be provided between said pulsed light source and said second object to switch said transmittance.

12-17. (Canceled)

18. (Currently Amended) A method according to claim 1, further comprising of manufacturing a device including a process for forming a device pattern on a work-piece using the exposure method according to claim 1 to manufacture a device.

19-21. (Canceled)

22. (Currently Amended) A method according to claim 10, further comprising of manufacturing an electronic device including a process for forming a device pattern on a work-piece using the exposure apparatus according to claim 10 to manufacture a device.

23. (Canceled)

24. (Previously Presented) An exposure method in which a plurality of divided regions having different target exposure levels on a second object are successively exposed, the method comprising:

determining a transmittance of a light attenuator disposed in an optical path of an exposure beam so as to satisfy a predetermined condition when exposing a divided region having a minimum target exposure level; and

exposing the plurality of divided regions having different target exposure levels on said second object without changing the transmittance of the light attenuator.

25. (Previously Presented) A method according to claim 24, the transmittance of the light attenuator is determined so that the number of exposure pulses for the divided region having the minimum target exposure level is equal to or more than the predetermined minimum number of exposure pulses.

26. (Previously Presented) A method according to claim 25, further comprising:
synchronously moving the first object and the second object to expose each of the plurality of divided regions on the second object; and
changing an exposure parameter includes at least one of a width of the exposure beam on the second object in the moving direction of the second object, a moving speed of the second object during the synchronous movement, an oscillation frequency of the pulsed energy source, and an energy of the exposure beam emitted from the pulsed energy source, during the exposure for the plurality of divided regions having different target exposure levels on said second object.

27. (Previously Presented) A method according to claim 26, wherein said exposure levels are determined for the plurality of divided regions respectively, in accordance with distances from a center of the second object.

28. (Previously Presented) A method according to claim 26, wherein the second object is a wafer.

29. (Currently Amended) A device manufacturing method according to claim 24, further comprising including a process for forming a device pattern on the wafer second object using the exposure method of claim 24 to manufacture a device.

30. (Previously Presented) An exposure apparatus in which a plurality of divided regions having different target exposure levels on a wafer are successively exposed, the apparatus comprising:

means for determining a transmittance of a light attenuator disposed in an optical path of an exposure beam so as to satisfy a predetermined condition when exposing a divided region having a minimum target exposure level; and

means for exposing the plurality of divided regions having different target exposure levels on the wafer without changing the transmittance of the light attenuator.

31. (Currently Amended) A ~~device manufacturing method~~ according to claim 30,
further comprising including a process for forming a device pattern on the wafer using the
exposure apparatus of claim 30 to manufacture a device.